Thumb Fatigue

Thumb fatigue refers to muscular or tendinous overuse symptoms affecting the thumb, commonly seen in people who perform repetitive fine motor tasks or use handheld devices excessively.

Etiology

- Overuse of thumb muscles and tendons:
 - Excessive texting (texting thumb)
 - Gaming or prolonged smartphone use
 - Manual tasks (sewing, writing, surgery, instruments)
 - Playing instruments (e.g., guitar, piano)

Pathophysiology

- Repetitive strain leads to microtrauma
- Fatigue of thenar muscles (especially abductor pollicis brevis, opponens pollicis)
- May be associated with early tendinopathy (e.g., De Quervain's tenosynovitis)

Clinical Presentation

- Dull ache or heaviness in the base of the thumb
- Discomfort with opposition, pinching, or gripping
- Local tenderness over thenar eminence or radial styloid
- Reduced endurance during repetitive tasks

Differential Diagnosis

- De Quervain's tenosynovitis
- CMC joint osteoarthritis
- Carpal tunnel syndrome (if median nerve is involved)
- Trigger thumb

Diagnosis

- Clinical evaluation
- Finkelstein's test (to rule out De Quervain's)
- Imaging (rarely needed unless persistent or severe)

Management

Strategy	Description	Notes
Activity modification	Reduce repetitive use	Ergonomic adjustments recommended
Rest and stretching	Frequent breaks and thumb stretches	Helps reduce overuse
Ice and NSAIDs	For pain and inflammation	Short-term use
Thumb spica splint	Immobilizes CMC/MCP joints	If symptomatic during tasks
Benanilialion	Strengthening and endurance training of thenar muscles	With occupational/physical therapy

Prevention

- Ergonomic tool design
- Limit smartphone usage
- Adequate rest periods during repetitive work

Prognosis

- Excellent with activity modification and rehab
- May become chronic if underlying cause persists

See also

- De Quervain's tenosynovitis
- Thumb CMC arthritis
- Ergonomics in hand use

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